

REMARKS

This responds to the Office Action dated December 1, 2004. Claims 1-29 are now pending in this application.

Reservation of the Right to Swear Behind References

Applicant maintains its right to swear behind any reference cited in a rejection under 35 U.S.C. §102(e). Statements distinguishing the claimed subject matter over the cited reference are not to be interpreted as admissions that the reference is prior art.

§102 Rejection of the Claims

Claims 1-29 were rejected under 35 USC § 102(e) as being anticipated by Kadous (US2001/0036235 A1). Applicant respectfully traverses the rejection. To anticipate a claim, the reference must teach every element of the claim. *M.P.E.P.* §2131.

Regarding claims 1-6:

Applicant cannot find in Kadous, among other things, generating a pilot vector using pilot symbols from said OFDM symbol, as recited or incorporated in the claims. Kadous refers to receiving training sequences rather than pilot symbols (§¶ 0032-0037). Also, the Office Action refers to the least squares (LS) channel estimate as a pilot vector (Office Action pg. 2). However, the LS estimate in Kadous is apparently calculated using training sequences (§ 0035).

Neither is Applicant able to find, calculating a dot product of said pilot vector and said first interpolation vector to generate an equalization coefficient for said first subcarrier of interest, as recited or incorporated in the claims. The Office Action states that coefficient interpolator and channel estimator then multiplies interpolation coefficient for each channel by the LS estimator to obtain the final channel estimate. Thus, even if the LS estimator did read on the pilot vector, the result of the multiplication in Kadous is the final channel estimate and not an equalization coefficient as recited or incorporated in the claims.

Regarding claims 7-18:

Applicant cannot find in Kadous, among other things, means for extracting a group of pilot symbols from said OFDM symbol to form a pilot vector, as recited or incorporated in the claims. Neither is Applicant able to find means for performing a mathematical operation using

said interpolation vector and said pilot vector to generate a first equalization coefficient for said first subcarrier of interest, as recited or incorporated in the claims.

Regarding claims 19-24:

Applicant cannot find in Kadous, among other things, said OFDM symbol having a plurality of pilot symbols, and a pilot vector unit to assemble a pilot vector using pilot symbols from the OFDM symbol, as recited or incorporated in the claims.

Regarding claims 25-29:

Applicant cannot find in Kadous, among other things, a computer readable medium having program instructions stored thereon for implementing a method comprising forming a pilot vector using pilot symbols from an OFDM symbol and calculating a dot product of said first interpolation vector and said pilot vector to generate an equalization coefficient for said first subcarrier of interest.

Applicant respectfully requests reconsideration and allowance of claims 1-29.

Conclusion

Applicant respectfully submits that the claims are in condition for allowance and notification to that effect is earnestly requested. The Examiner is invited to telephone Applicant's attorney ((612) 349-9592) to facilitate prosecution of this application.

If necessary, please charge any additional fees or credit overpayment to Deposit Account No. 19-0743.

Respectfully submitted,

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Date June 1, 2005

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CERTIFICATE UNDER 37 CFR 1.8: The undersigned hereby certifies that this correspondence is being deposited with the United States Postal Service with sufficient postage as first class mail, in an envelope addressed to: MS Amendment, Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450, on this 1st day of June, 2005.

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